

SOROKINA, M.I. (Moskva, B-311, 1-aya ul. Stroiteley, 6, korp.6, kv.43)

Problem of desmogenous and chrondrogenic differentiation of the
mesenchyma. Arkh anat. gist i embr. 38 no. 6:17-21 Je '60.
(MIRA 13:12)

1. Laboratoriya tsitologii (zav. - chlen-korrespondent AN SSSR
zasluzhennyy deyatel' nauki prof. G.K. Khrushchov) Instituta
morfologii zhivotnykh AN SSSR.
(CONNECTIVE TISSUE) (BLOOD VESSELS) (LYMPHATICS)

SOROKINA, M.I.

Karyological characteristics of desmogenetic and chondrogenetic
mesenchymal differentiations in the process of histogenesis.
Dokl. AN SSSR 135 no.4:975-977 '60. (MIRA 13:11)

1. Institut morfologii zhivotnykh im. A.N.Severtsova Akademii
nauk SSSR. Predstavleno akademikom A.N.Bakulevym.
(Embryology) (Connective tissues)

SOROKINA, M.I.; CHILINGARIDI, Ye.K.; KOZLOV, Yu.G.; GORBOVITSKIY, Ye.B.
(Moskva)

Treatment of acute renal insufficiency by hemodialysis using
an "artificial kidney" apparatus of Soviet manufacture. Klin.
med. no.3:27-31 '62. (MIRA 15:3)

1. Iz otdeleniya "iskusstvennaya pochka" I Moskovskogo ordena
Lenina meditsinskogo instituta (dir. - chlen-korrespondent AMN
SSSR V.V. Kovanov, glavnyy vrach B.S. Bobov, nauchnyye rukovo-
diteli - zasluzhennyy deyatel' nauk prof. N.N. Yelanskiy i
prof. I.M. Epshteyn).
(RENAL INSUFFICIENCY) (KIDNEYS, ARTIFICIAL)

SOROKINA, M.I. (Moskva, V-311, 1-ya Stroitel'naya ul. 6, korp.6, kv.43)

Characteristics of the structure of the mechanism of mitosis
in desmogenic and chondrogenic differentiations of mesenchyma
in the process of histogenesis. Arkh. anat., gist. i embr.
42 no.6:36-43 Je '62. (MIRA 15:6)

1. Laboratoriya tsitologii (zav. - chlen-korrespondent
AN SSSR zasluzhennyy deyatel' nauki prof. G.K. Khrushchov)
Instituta morfologii zhivotnykh imeni A.N. Severtsova AN
SSSR.

(KARYOKINESIS) (CONNECTIVE TISSUES) (CARTILAGE)

VERTEPOVA, V.M., dots.; VOL'PYAN, Ye.L., ass.; ZAMIKHOVSKIY,
I.Z., ass.; RAMENSKIY, S.B., prepod.; ~~SOROKINA, M.I.,~~
prepod.; EPSHTEYN, I.M., prof., red.; ~~SHCHURIN, P.I.,~~
red.;

[Methodological instructions for practical work in urology]
Metodicheskie ukazaniia k prakticheskim zaniatiiam po uro-
logii. Pod red. I.M.Epshteina. Moskva, 1963. 37 p.
(MIRA 16:12)

1. Moscow. Pervyy meditsinskiy institut.
(UROLOGY—HANDBOOKS, MANUALS, ETC.)

SOROKINA, M.I.

Mitochondria in the process of desmogenous and chondrogenous differentiation of the mesenchyme. Arkh. anat., gist. i embr. (MIRA 19:1)
48 no.5:18-21 My '65.

1. Laboratoriya tsitologii (zav. - chlen-korrespondent AN SSSR, zasluzhennyy deyatel' nauki, prof. G.K. Khrushchov [deceased])
Instituta morfologii zhivotnykh imeni A.N. Severtsova AN SSSR,
Moskva. Submitted December 12, 1963.

SOLOV'YEVA, N.K.; IL'INSKAYA, S.A.; TAYG, M.M.; SAVEL'YEVA, A.M.; SOROKINA, N.A.

Antibiotics from certain Actinomyces inc forming coremia. Antibiotiki,
4 no.2:40-45 Mr-Apr '59. (MIRA 12:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(ANTIBIOTICS
prod. from coremia-forming Actinomyces (Rus))
(ACTINOMYCES, culture
coremia-forming & antibiotic-prod. strains (Rus))

SOLOV'YOVA, N.K.; TAYG, M.M.; TRAKHTENBERG, D.M.; BIRLOVA, L.V.; SOROKINA, M.A. .

Characteristics of the organism producing the antiviral antibiotic
vaccinocidin, its isolation and properties. Antibiotiki 9 no.7:596-
602 J1 '64. (MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov, Moskva.

S/890/61/000/002/007/007

A059/A126

AUTHOR: Sorokina, N.A., Engineer

TITLE: The stability of oils in the operation of an automotive engine, and the influence of additives on it

SOURCE: Moscow. Nauchno-issledovatel'skiy institut avtomobil'nogo transporta. Ekspluatatsionno-tekhnicheskiye svoystva i primeneniye avtomobil'nykh topliv, smazochnykh materialov i spetszhidkostey. no. 2, 1961, 51 - 57

TEXT: This study of the resistance to oxidation of oils containing various additives in a finely dispersed state performed in a device developed by NIIAT is the continuation of the paper "Ekspluatatsionno-tekhnicheskiye svoystva i primeneniye avtomobil'nykh topliv, smazochnykh materialov i spetszhidkostey" (Working and technical qualities and use of automobile fuels, lubricants, and special-purpose liquids) published in this collection in 1959. By performing laboratory tests on the oxidation of the oil samples ДС-8 (DS-8) either additive-free or containing various additives [ВНИИ НП-360 (VNII NP-360, ДФ-1 (DF-1), ПМС-19 (PMS-19), ЦИАТИМ-339 (TsIATIM-339), and a mixture of the non-Soviet additives

Card 1/2

The stability of oils in the operation of an

S/890/61/000/002/007/007
A059/A126

612 and 1060] with the apparatus of NIIAT, it has been established that the highest-grade Soviet additive is VNII NP-360. Tests performed on the oil DS-8, additive-free and containing VNII NP-360 and DF-1, respectively, after having been kept in the engine ГАЗ-51 (GAZ-51) (containing no fine-mesh filter) for 105 h by alternating "hot" and "cold" cycles have shown that the additive VNII NP-360 improves the stability of the basic oil by reducing the formation of oxidative and condensation products by 27% as compared to the other oils tested, and also reduces the formation of acid oxidation products and sludge. This work was carried out under the guidance of N.V. Brusyantsev. There are 1 figures and 2 tables.

Card 2/2

S/081/62/000/018/039/059
B166/B180

AUTHOR: Sorokina, N. A.

TITLE: Determination of the impurity content in used automobile engine oils

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 18, 1962, 454, abstract 18M214 (In collection: Ekspluat.-tekhn. svoystva i primeneniye avtomob. topliv, smazochn. materialov i spetszhidkostey. no. 2. M., Avtotransizdat, 1961, 62-68)

TEXT: Two methods have been worked out for determining the impurity content, both overall and by components, in oils with different additives, used in automobile engines and other mechanisms. In the method which uses cryolite as the filtering agent, the overall impurity content of the oil can be determined and the concentration of the different components of these impurities shown. In this case the mechanical impurities are determined together with the carbenes and carboids, since relatively high temperature calcination cannot be carried out with cryolite. This method is therefore recommended for analysis of oils containing no

Card 1/2

BRUSYANTSEV, N.V., kand. tekhn. nauk; SGROKINA, N.A., inzh.

Objects of testing. Ekspl.-tekhn. svets. i prin. avt. top. smaz.
mat. i spetszhid. no.3:48-56 '63.

(MIRA 17:10)

SOROKINA, N.A., Inzh.

Determining the admixture content in oils used in motor-vehicle
engines. Ekspl.-tekhn. svoist. i prim. avt. top. smek. mat. i
spetszhid. no.3:83-85 '63. (MIRA 17:10)

NEUYMIN, G.G.; SOROKINA, N.A.

Optical dispersing layers in the sea. Okeanologiya 4 .no.1:51-54
'64. (MIRA 17:4)

1. Chernomorskoye otdeleniye Morskogo gidrofizicheskogo instituta
AN UkrSSR.

N. UYUIN, G.G.; SOROKINA, N.A.; PANAPONOV, A.N.; PROSHCHIN, V.N.

Some results of optical investigations in the northern part
of the Atlantic Ocean. Trudy Mor. gidrofiz. inst. AN URSS
29:64-75 '64. (MIRA 17:7)

Optical Investigations in the Northern Part of the Atlantic

On the seventh voyage of the "Mikhail Lomonosov" measurements were made of the following hydrooptical characteristics in the northern part of the Atlantic Ocean: transparency (index of attenuation) of ocean water (in 5 spectral parts of the visible region of the spectrum and in "white" light), underwater illumination of a horizontal surface by light propagating downward and upward (in 4 spectral parts of the visible region), and determination of the depth of visibility of a white disk and water color, using a standard method. There is a map showing the track of the vessel and the stations occupied for hydrooptical measurements. Detailed information, including diagrams and tables, is given for these different types of investigations for the different stations and parts of the Atlantic. The information is compared with that published by Clarke, Gall, Duntley and others.

(Abstract: "Some Results of Optical Investigations in the Northern Part of the Atlantic", by G. G. Neuymin, N. A. Sorokina, A. N. Paramonov and V. N. Paramonov and V. N. Proshchin; Kiev, Gidrologicheskoye Issledovaniya, 1964, pp. 64-75)

JPRS: 31,596, 18 Aug 65

15

16(1),16(2)

AUTHOR: Sorokina, N.G.

SOV/41-11-2-15/17

TITLE: On a Theorem of N.N.Bogolyubov

PERIODICAL: Ukrainskiy matematicheskiy zhurnal, 1959, Vol 11, Nr 2,
pp 220-222 (USSR)

ABSTRACT: The theorem on the plate proved by N.N.Bogolyubov in the theory
of dispersion relations is proved by the author in a plain
manner with the aid of the results of Dyson.
There are 3 references, 1 of which is Soviet, 1 Italian, and
1 American.

SUBMITTED: December 4, 1958

Card 1/1

LOZINOVA, V.M.; SOROKINA, N.G.

Requirements for the content of topographic maps in soil and geobotanical
surveying for agricultural purposes. Trudy TSNIIGAIK no.161:67-79 '63.
(MIRA 17:12)

SOROKINA, N.G.

Requirements for the content of topographical maps in forestry. Trudy
TSNIIGAİK no.161:80-84 '63. (MIRA 17:12)

KUDRYAVTSEV, N.T.; POTAPOV, I.I.; SOROKINA, N.G.

Investigating the electrolytic deposition of chromium from
solutions of its trivalent compounds. Zashch. met. 1 no.3:
304-307 My-Je '65. (MIRA 18:8)

1. Moskovskiy khimiko-tehnologicheskii institut imeni D.I.
Mendeleeva.

SOROKINA, N.I.

SOROKINA, N.I.

On some problems in the representation of populated places on
general geographic maps. Trudy TSNIIGAIIK no.92:155-187 '53.

(MIRA 10:12)

(Cartography)

VANSCHIEDT, A.A.; MAJNOVA, Z.K.: SOROKINA, N.I.

Melamine

Condensation of melamine with formaldehyde and preparation of melamine-formaldehyde resins and plastics, Zhur. prikl. khim 20 No. 3, 1947

Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

SOROKINA, N.

DOLGOV, B.N., professor.; SOROKINA, N.

Reaction capacity of aluminum chloride prepared by Radzivanovskii's
method. Nauch. binl. Len. un. no.22:21-22 '49. (MIRA 10:4)

1. Kafedra organicheskoy khimii.
(Aluminum chloride)

SOROKINA, N. I.

176T28

USSR/Chemistry - Antiknock Fuels

Mar 51

"Condensation of Benzene With Aliphatic Polyhalides Using $AlCl_3$ Prepared According to Radzivanovskiy," B. N. Dolgov, N. I. Sorokina, A. S. Cherkasov, Chair of Org Chem, Leningrad State U.

"Zhur Obshch Khim" Vol XXI, No 3, pp 509-516

Condensed MeI , (I), $iso-PrCl$ (II) $iseco-BuCl$ (III), and $iso-AmCl$ (IV) with C_6H_6 in presence of $AlCl_3$ obtained by Radzivanovskiy method. Yields of monoalkylbenzenes declined in above order. Condensation of C_6H_6 with following yielded resp: with I up to 11.5% penta- and hexamethylbenzenes; with II-IV decreasing yields of di- and trialkyl-benzenes as mol wt offradicals increased; with III and IV chiefly $tert-Bu-$ and $tert-AmC_6H_6$ (linked with isomerization and splitting of $iso-C_5H_{12}$ side with chain; with $CHCl_3$ up to 38% Ph_2CH_3 and 3-4% Ph_3CH_3).

Sorokina, N. I.

✓ Chemical structure of thermal polymers of butadiene.
A. I. Yakubchik and N. I. Sorokina (State Univ., Lenin-
grad). Zhur. Obshch. Khim. 26, 2421-5 (1958). Buta-
diene polymers prepd. at 90° (sol. polymer) and at 120°
 (insol.) were studied by ozonolysis. The latter yielded
 CH_2O , $(\text{CH}_2\text{CHO})_n$, HCO_2H , $(\text{CH}_2\text{CO}_2\text{H})_n$, 1,2,4-butane-
 tricarboxylic acid and hexanetetracarboxylic acid; the acids
 were isolated as Me esters prepd. by action of CH_3N_3 .
 The compn. of both specimens is the same. The polymers
 possess structural regions that can be shown schematically
 as: 1,4-1,4; 1,4-1,2-1,4; and 1,4-1,2-1,2-1,4 addns.
 G. M. Kosolapoff

PM MK

4000
 18m 3
 2m 40

L 60202-65 EWT(m)/EPF(c)/EWP(j)/T PC-4/Pr-4 GS/JAJ/RM
 ACCESSION NR: AT5019606

UR/0000/64/000/000/0091/0100

AUTHOR: Korotkov, A. A.; Chevychalova, K. K.; Sorokina, N. I.

TITLE: Effect of contaminants in triisobutyl aluminum on the process of isoprene polymerization with a complex catalyst

SOURCE: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka. Polimerizatsiya izoprena kompleksnymi katalizatorami (Polymerization of isoprene by complex catalysts). Moscow, Izd-vo Khimiya, 1964, 91-100

TOPIC TAGS: contaminant, triisobutyl aluminum, isoprene, polymer, rubber, Ziegler catalyst

ABSTRACT: The effect of contaminants present in commercial grade triisobutyl aluminum (aluminum diisobutylchloride, salts of organic acids, aluminum diisobutylhydride, aluminum diisobutylisobutoxide, and isobutylene) on isoprene polymerization with Ziegler-type catalyst was studied at 20°C in an isopentane solvent. Isoprene concentration was 15-20 vol % based on reaction mixture and concentration of the catalyst was 3 wt % based on isoprene. After 2 hour polymerization the products were quenched with ethyl alcohol. The effect of individual contaminants was judged

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ACCESSION NR: AT5019606

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in terms of characteristic viscosity of the polymerization product and mechanical properties of vulcanized product samples as measured at 20° and 100°C. Up to 60 wt % of isobutylene and up to 1 wt % of aluminum butyl stearate (based on triisobutyl aluminum) has no effect on either the rate of isoprene polymerization or the rubber quality. Catalyst containing aluminum diisobutylisobutoxide, aluminum diisobutylchloride, and aluminum diisobutylhydride are less active and they give rubbers of inferior quality. Orig. art. has: 6 tables.

24Oct64

ENCL: 00

SUB CODE: OC,CC

NO REF SOV: 003

OTHER: 006

Card 2/2 *AR*

BLYAKHER, I.G.; SOROKINA, N.M.

Manufacture of red oxide by means of thermal decomposition
of pulverized iron sulfate. Lakokras.mat.i ikh prim. no.3:42-44
'62. (MIRA 15:7)

(Iron oxides)

(Iron sulfates)

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																																																			
<p>CA</p> <p>Spectroscopic determination of titanium in stainless steels. L. E. Bruk and N. N. Sorokina. <i>Bull. acad. sci. U.S.S.R. phys.</i> 4, 23-4 (1940).—The spectroscopic analysis of stainless steels with the purpose of detecting titanium is carried out by comparing the intensities of the lines Ti II $\lambda = 3088.032$ A. and Fe II $\lambda = 3083.747$ A. This method is sufficiently rapid and the results are within 5% of the truth. Roksalana Ganiow</p>																																																			
<p>ASH. S. A. METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			

COMMON ELEMENTS										COMMON VARIABLE INDEX									
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A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT AU AV AW AX AY AZ BA BB BC BD BE BF BG BH BI BJ BK BL BM BN BO BP BQ BR BS BT BU BV BW BX BY BZ CA CB CC CD CE CF CG CH CI CJ CK CL CM CN CO CP CQ CR CS CT CU CV CW CX CY CZ DA DB DC DE DF DG DH DI DJ DK DL DM DN DO DP DQ DR DS DT DU DV DW DX DY DZ EA EB EC ED EE EF EG EH EI EJ EK EL EM EN EO EP EQ ER ES ET EU EV EW EX EY EZ FA FB FC FD FE FF FG FH FI FJ FK FL FM FN FO FP FQ FR FS FT FU FV FW FX FY FZ GA GB GC GD GE GF GG GH GI GJ GK GL GM GN GO GP GQ GR GS GT GU GV GW GX GY GZ HA HB HC HD HE HF HG HH HI HJ HK HL HM HN HO HP HQ HR HS HT HU HV HW HX HY HZ IA IB IC ID IE IF IG IH II IJ IK IL IM IN IO IP IQ IR IS IT IU IV IW IX IY IZ JA JB JC JD JE JF JG JH JI JJ JK JL JM JN JO JP JQ JR JS JT JU JV JW JX JY JZ KA KB KC KD KE KF KG KH KI KJ KL KM KN KO KP KQ KR KS KT KU KV KW KX KY KZ LA LB LC LD LE LF LG LH LI LJ LK LL LM LN LO LP LQ LR LS LT LU LV LW LX LY LZ MA MB MC MD ME MF MG MH MI MJ MK ML MN MO MP MQ MR MS MT MU MV MW MX MY MZ NA NB NC ND NE NF NG NH NI NJ NK NL NO NP NQ NR NS NT NU NV NW NX NY NZ OA OB OC OD OE OF OG OH OI OJ OK OL OM ON OO OP OQ OR OS OT OU OV OW OX OY OZ PA PB PC PD PE PF PG PH PI PJ PK PL PM PN PO PP PQ PR PS PT PU PV PW PX PY PZ QA QB QC QD QE QF QG QH QI QJ QK QL QM QN QO QQ QR QS QT QU QV QW QX QY QZ RA RB RC RD RE RF RG RH RI RJ RK RL RM RN RO RP RQ RR RS RT RU RV RW RX RY RZ SA SB SC SD SE SF SG SH SI SJ SK SL SM SN SO SP SQ SR SS ST SU SV SW SX SY SZ TA TB TC TD TE TF TG TH TI TJ TK TL TM TN TO TP TQ TR TS TT TU TV TW TX TY TZ UA UB UC UD UE UF UG UH UI UJ UK UL UM UN UO UP UQ UR US UT UU UV UW UX UY UZ VA VB VC VD VE VF VG VH VI VJ VK VL VM VN VO VP VQ VR VS VT VU VV VW VX VY VZ WA WB WC WD WE WF WG WH WI WJ WK WL WM WN WO WP WQ WR WS WT WU WV WW WX WY WZ XA XB XC XD XE XF XG XH XI XJ XK XL XM XN XO XP XQ XR XS XT XU XV XW XX XY XZ YA YB YC YD YE YF YG YH YI YJ YK YL YM YN YO YP YQ YR YS YT YU YV YW YX YY YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW ZX ZY ZZ																			
<p>Use of Photographic Photometry in Quantitative Spectral Analysis. V. K. Prokof'ev and N. N. Sorokina (<i>Zavod. Lab. (Works' Lab.)</i>, 1940, 9, 417-425; <i>C. Abs.</i>, 1940, 34, 7201). [In Russian.] After a critical discussion of various applications of photographic photometry to spectrographic analysis, a new method is developed for constructing calibration curves. These curves are not dependent on the properties of the photographic plate, but are governed by the physical properties of the alloys, the width of slit, and the method of excitation at the source of light. The application of such curves is illustrated with examples of chromium in low-alloy steels.</p>										<p>11</p>									
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>										<p>ALUMINA</p>									

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSING AND PROPERTIES INDEX																			
CA										7									
<p>Spectroscopic analysis of pc. malloys. A. V. Lutenko and N. N. Sorokina. <i>J. Tech. Phys. (U.S.S.R.)</i> 15, 2816 (1945).—Ni and Mo can be detd. by spectroscopy in 4 permalloys contg. in addn. to Fe, Ni 24-35%, 45%, 78-82% (+ Mo 3.6-4.2%), and about 80% (+ some Mo and 0.8-1.5% of Cu). The intensity of the lines Ni 3101.6, 3101.9 and Mo 2775.4 is compared with that of Fe 3007.25 and 2770.8 Å, resp. The other electrode is of Al (better than those of Fe or Cu). Nineteen detns. of Ni in a sample gave, e.g., $70.4 \pm 0.00\%$, and 10 detns. of Mo gave $4.07 \pm 0.03\%$. The difference between these values and those of a chem. analysis is 3% for Ni and 8% for Mo.</p> <p>J. J. Bikerman</p>																			
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
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<div style="position: relative; width: 100%; height: 100%;"> M 11 <div style="position: absolute; top: 20%; left: 25%; width: 70%; text-align: center;"> <p>*Spectroscopic Analysis of Permalloys. A. V. Lutsenko and N. N. Sorokha (Zhur. Tekhn. Fiziki, 1946, 18, 243-246; C. Abs., 1946, 66, 3761).—[In Russian]. Ni and Mo can be determined by spectroscopy in 4 Permalloys containing respectively, in addition to Fe, Ni 24-35%, 45%, 78-82% (+ Mo 3-6-4.2%), and about 80% (+ some Mo and 0-8-1-5% of Cu). The intensity of the lines Ni 3101-6-3101-9 and Mo 2775-4 is compared with that of Fe 3067-25 and 2779-3 Å, respectively. The other electrode is of Al (better than those of Fe or Cu). As an example, nineteen determinations of Ni in a sample gave 79.4 ± 0.8%, and 10 determinations of Mo gave 4.07 ± 0.03%. The difference between these values and those of a chemical analysis is 3% for Ni and 8% for Mo.</p> </div> </div>																																																			
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15

Quantitative Spectroanalysis of Boron in Steel. A. V. Lutaenko and N. N. Sorokina. 8 pages. From *Zavodskaya Laboratoriya*, v. 12, no. 6, 1946, p. 574-576. Henry Bratcher, Altadena, Calif. (Translation No. 1909.)

Describes an improved quantitative spectroanalytical method suitable for 0.001-0.005% B in steel. The time required for one analysis averages 12 minutes.

SOROKINA, N. N. Cand. Geolog-Mineralog Sci.

Dissertation: "Geological Structure and Petroleum-Gas-Bearing Possibilities of the Crimean Steppe." Moscow Order of the Labor Red Banner Petroleum Inst. imeni Academician I. M. Gubkin. 10 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)

M

*Spectrographic Analysis of Formalloy. A. V. Borova and N. N. Sorokina
[Zurad., Lab., 1948. 10. (9), 1066-1100].—(In Russian). A rapid routine method for the spectrographic determination of Ni, Mo, Cu, Mn, and Si in Formalloy is described; the comparison element in each case being Fe. A Penner apparatus without interrupter was used, and the second electrode was Al. The line pairs used for comparison were: Ni 3103-460, 2092-505, Fe 3067-244, 3000-851; Mo 2776-4, Fe 2770-299; Cu 3273-962, Fe 3227-747; Mn 2880-58, 2833-063, Fe 2883-702, 2836-906; Si 2516-123, Fe 2518-101.
Mean relative errors in a series of determinations were: Mo ± 0.9%, Ni ± 1.1%, Mn ± 1.8%, Cu ± 2.8%, and Si ± 5.3%.—N. B. V.

ASM-AIA METALLURGICAL LITERATURE CLASSIFICATION

SOROKINA, N. N.

Mem., Sci. Res. Inst. Qualitative Steel & Iron Alloys, -1944-. Mem. Central Sci. Res. Inst. Ferrous Metals, -c1948-c1950-. "Spectral Analysis of Permalloys," Zhur. Tekh. Fiz., 15, Nos. 4-5, 1945; "Spectral Determination of Small Amounts of Boron, Vanadium, Titanium and Aluminum in Steel," Iz. Ak. Nauk SSR, Ser. Fiz. 11, No. 3, 1947; "Spectral Analysis of Permalloy Float," Zavod. Lab., 14, No. 99, 1948; "Spectrographic Investigation of Calibrating Curves for Hard Alloys and Solutions," Iz. Ak. Nauk SSSR, Ser. Fiz., 14, No. 5, 1950

15

Spectrographic Analysis of Ferromalleys. (In Russian.)
A. V. Borsova and N. N. Sorokina. *Zavodskaya
Laboratoriya* (Factory Laboratory), v. 14, Sept.
1948, p. 1098-1100.

Proposes improved method for the above, with
emphasis on determination of Ni and Mo. Data
are tabulated.

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

WATERGATE INDEX

CROSS REFERENCE INDEX

CHICKIN' N. N.,

TP 172T50

USSR/Metals - Spectrography

Sep/Oct 50

"Spectrographic Investigation of Calibrating Curves
for Hard Alloys and Solutions," N. N. Sorokina, Cen
Sci Res Inst for Ferrometallurgy

"Iz Ak Nauk SSSR, Ser Fiz" Vol XIV, No 5, pp 567-571

Prepn of standard alloys for calibration is difficult.
Substitution of alloys by soln simplifies problem.
Substitution is possible because calibrating curves for
alloys and soln are found to be parallel, either coin-
ciding or having parallel shift.

172T50

USSR/ Chemistry - Spectral analysis

Card 1/1 Pub. 43 - 56/97

Authors : Sorokina, N. N.

Title : About the quantitative spectral analysis for a greater range of concentrations

Periodical : Izv. AN SSSR. Ser. fiz. 18/22, page 277, Mar-Apr 1954

Abstract : Various binary alloys - Ni-Cr, Mn-Fe, Cr-Fe, Ni-Fe and complex alloys - Ni-Cr-Fe, Ni-Co-Fe, Co-Ni-Fe as well as solutions of these alloys were investigated to determine the applicability of quantitative spectral analysis methods at greater concentrations of these alloys. The alloys investigated showed no effect usually due to the physico-chemical processes occurring on the electrodes. The calibrated curves in new coordinates for all alloys tested appeared in the form of straight lines thus indicating the adaptability of the spectral analysis method.

Institution : Central Scientific Research Institute of Ferrous Metallurgy

Submitted :

SOROKINA, N.N.; FREGER, D.P., tekhn.red.

[Curtailling the number of standards for spectrum analysis]
Sokrashchenie kolichestva etalonov pri provedenii spektral'nogo
analiza. Leningrad, 1955. 16 p. (Leningradskii dom nauchno-
tekhnicheskoi propagandy. Informatsionno-tekhnicheskii listok,
no.6(674)) (MIRA 10:12)

(Spectrum analysis)

S/081/61/000/020/036/089
B117/B147

AUTHORS: Buyanov, N. V., Razumova, G. P., Sorokina, N. N., Yakovlev, P. Ya.

TITLE: Spectrochemical method of determining small impurities in metallic chromium

PERIODICAL: Referativnyi zhurnal. Khimiya, no. 20, 1961, 124, abstract 20D146 (Sb. tr. Tsentr. n.-i. in-t chernoy metallurgii, no. 19, 1960, 65 - 71)

TEXT: In the analysis of metallic chromium, the chemical concentration of impurities (Cd, Sb, Bi, Pb, Sn) is conducted by treating acid hydrogen sulfide solutions with the use of copper as a collector. For producing standards, 3 g of pure metallic chromium is mixed in a quartz glass with the determinable elements and 30 - 40 milliliters of HCl, and heated until dissolution. The resulting solutions are concentrated by evaporation. Then, 20 milliliters of 50% citric acid solution, 5 milliliters of HCl, and 3 milliliters of CuNO_3 solution (10 mg/milliliter) are added. The solution

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Spectrochemical method of determining...

S/081/61/000/020/036/089
B117/B147

is adjusted to pH = 2 - 3 by means of NH_4OH , and filled up with 180 milliliters of water. H_2S is passed through for 20 min at a rate of 80-100 bubbles a minute. After 1 hr, the precipitates are filtered, washed with a solution containing H_2S and CH_3COONa , dried, ashed, and calcinated at 600°C ; thereafter, the standards are ready for use. Samples are treated similarly but without adding solutions of elements. The resulting concentrate weighing ~50 mg is mixed with carbon powder (1:1), and introduced in the opening of a carbon electrode (3.4 mm diameter and 9 mm depth). The electrode diameter is reduced to 2 mm near the opening. The spectrum is excited in an a-c arc at 12 a, and photographed (30 sec) on a medium-sized NCW-22 (ISP-22) spectrograph with a 0.01 slit and an electrode spacing of 1.2 mm. Curves of evaporation of substances from the electrode were studied. Analysis is performed by the method of photometric interpolation with respect to the lines (in Å): Pb 2614 - Cu 2630, Bi 3067 - Cu 3088, Sb 2598 - Cu 2630, Sn 2429 - Cu 2441, and Cd 2288 - Cu 2276. The calibration curves are straight for the concentration range of $1 \cdot 10^{-4}$ - $1 \cdot 10^{-2}\%$. Depending on the element, the analytical error is $\pm 10 - 19\%$. The results

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Spectrochemical method of determining...

S/081/61/000/020/036/089
B117/B147

of the spectrum analysis and of other analytical methods are in satisfactory agreement. [Abstracter's note: Complete translation.]

Card 3/3

50 ROKINA, Y. N.
Shest'kov, Y. A.

105

PHASE I BOOK EXPLOITATION

SOV/6181

Ural'skoye soveshchaniye po spektroskopii. 3d, Sverdlovsk, 1960.
Materialy (Materials of the Third Ural Conference on Spectroscopy) Sverdlovsk, Metallurgizdat, 1962. 197 p. Errata slip inserted. 3000 copies printed.

Sponsoring Agencies: Institut fiziki metallov Akademii nauk SSSR.
Komissiya po spektroskopii; and Ural'skiy dom tekhniki VSNTO.

Eds. (Title page): G. P. Skornyakov, A. B. Shayevich, and S. G. Bogomolov; Ed.: Gennadiy Pavlovich Skornyakov; Ed. of Publishing House: M. L. Kryzhova; Tech. Ed.: N. T. Mal'kova.

PURPOSE: The book, a collection of articles, is intended for staff members of spectral analysis laboratories in industry and scientific research organizations, as well as for students of related disciplines and for technologists utilizing analytical results.

COVERAGE: The collection presents theoretical and practical problems of the application of atomic and molecular spectral analysis in controlling the chemical composition of various materials in ferrous and nonferrous metallurgy, geology, chemical industry, and medicine. The authors express their thanks to G. V. Chentsova for help in preparing the materials for the press. References follow the individual articles.

5

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Card 7/15

SOROKINA, N.N.; GOLUBEVA, V.M.

Spectral analysis of steel and alloys for rare earth elements.
Zav.lab. 29 no.5:559-560 '63. (MIRA 16:5)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy
metallurgii imeni I.P.Bardina.
(Steel—Spectra) (Alloys—Spectra) (Rare earths—Spectra)

SOROLINA, N.N.; GOLUBEVA, V.M.

Spectroscopic determination of cerium and lanthanum in pure metals,
steels, and alloys. Sbor.trud. TSNIICHM no.31:41-45 '63.

(MIRA 16:7)

(Metals--Spectra) (Cerium--Spectra) (Lanthanum--Spectra)

I 58900-65 EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b)/EWA(h) Pad/Feb IJP(c)
 ACCESSION NR: AP5016096 JD/HW/JG UR/0075/65/020/006/0745/0747
 543.42

31
27
8

AUTHOR: Fedorov, A. A., Sorokina, N. N.

TITLE: Spectrochemical determination of samarium, gadolinium, dysprosium, erbium, and scandium (0.01-0.6%) in steels and alloys

SOURCE: Zhurnal analiticheskoy khimii, v. 20, no. 6, 1965, 745-747

TOPIC TAGS: samarium, gadolinium, dysprosium, erbium, scandium, chromium steel, nickel steel, nickel alloy, steel analysis, rare earth determination, spectroscopic analysis

27

ABSTRACT: A spectrochemical method was developed for determining 0.01-0.6% Sm in chromium-nickel steels and nickel-base alloys, and for determining Gd, Dy, Er, and Sc (0.01-0.6%) in alloys of metallic iron with rare earth elements or scandium and in medium-alloy steels. The chemical preparation of the materials to be analyzed is described. The spectral analysis of the concentrates thus obtained was performed with an ISP-51 spectrograph using a UF-84 camera or with a DFS-13 diffraction spectrograph, the method of three standards being used. The analytical lines for each element are listed. The error of the method in determining from 1×10^{-2} to 6×10^{-1} wt. % scandium ranges from

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L 58900-65

ACCESSION NR: AP5016096

$\pm 3 \times 10^{-3}$ to $\pm 3 \times 10^{-2}$ %, respectively. The method was thus shown to be completely reliable. "The authors express their appreciation to Z. M. Sokolova, V. M. Golubeva, and I. A. Vasina, who participated in this work." Orig. art. has: 1 table.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii im. I. P. Bardina, Moscow (Central Scientific Research Institute of Ferrous Metallurgy)

SUBMITTED: 00

ENCL:00

SUB CODE:IC, MM

NO REF SOV: 001

OTHER: 000

Card

2/2 *slap*

..SOROKINA, N.N.; KONDRAT'YEV, P.A.

Spectral method of determining carbon based on cyanogen spectra.
Zav. lab. 31 no.11:1344-1345 '65. (MIRA 19:1)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metal-
lurgii imeni Bardina.

L 47085-66 EWT(m)/ZWP(t)/ETI IJP(c) JD/JG
 ACC NR: AT6030228 SOURCE CODE: UR/2776/66/000/049/0084/0085

AUTHOR: Sorokina, N. N.; Fedorov, A. A.; Golubeva, V. M.; Chernyakhovskaya, F. V. 47
 ORG: none B+1

TITLE: Chemical-spectroscopic method of determining the samarium content in 1Kh13N16B and 12Kh1MF steels, and KhN77YuR alloy 27 18

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 49, 1966. Novyye metody ispytaniy metallov; khimicheskiy kontrol' v metallurgii (New methods in the analysis of metals; chemical control in metallurgy), 84-85

TOPIC TAGS: samarium, spectroscopy, metal chemical analysis

ABSTRACT: A chemical-spectroscopic method of determining the samarium content in 1Kh13N16B, and 12Kh1MF steels, and KhN77TYuR alloy has been developed. Samarium is isolated by precipitation in the form of fluoride, which is subjected to spectroscopic analysis. With this method, samarium contents of 0.001-0.1% can be determined with respective errors of $\pm 0.0003-0.008\%$. Orig. art. has: 1 table. [TD]

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 001/

Card

1/1 mt

ACC-NR: AT6030227

SOURCE CODE: UR/2776/66/000/049/0048/0052

AUTHOR: Lenskaya, K. K.; Tikhomirova, O. F.; Golubeva, V. M.; Sorokina, N. N.;
Suchelenskova, L. M.

ORG: none

TITLE: Spectrochemical method for determining the composition of tungsten-molybdenum
alloys

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.
Sbornik trudov, no. 49, 1966. Novyye metody ispytaniy metallov; khimicheskiy kontrol'
v metallurgii (New methods in the analysis of metals; chemical control in metallurgy).
48-52

TOPIC TAGS: tungsten containing alloy, molybdenum containing alloy, spectrographic
analysis, metal chemical analysis

ABSTRACT: The article describes a spectrochemical method for analysis of tungsten-
molybdenum alloys for titanium and zirconium (0.010-50%); tungsten (10-70%); and
hafnium, lanthanum, and yttrium (0.001-0.1%). The contents of titanium, zirconium,
hafnium, lanthanum, and yttrium are determined in tungsten-molybdenum alloys of
constant composition, and the tungsten composition in alloys of varying composition.
The proposed method for determination of titanium, zirconium, hafnium, lanthanum, and

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ACC NR: AT6030227

yttrium includes the following steps: introduction of the sample into solution, introduction of a collector, separation of the elements being investigated from the base elements, and spectral analysis of the concentrate. The article gives a detailed description of the methods used to prepare standard solutions of each of the elements under consideration, and for preparation of the samples for X ray analysis. Orig. art. has: 1 figure and 2 tables.

SUB CODE: 07, 11/ SUBM DATE: none/ ORIG REF: 001

Card 2/2

SCROKINA, N.N.

1. 14595-65 EWT(d)/EWT(m)/ENP(c)/EWA(d)/EWP(v)/L-2/EMP(t)/EMP(k)/ENP(b)/ENP(1)
 ACCESSION NR AM4046730 BOOK EXPLOITATION Pf-4 MJH/JD/ S/
 MLK

Samarin, A. M., ed. (Corresponding member, Academy of Sciences, U.S.S.R.) B+/

Steel production; handbook (Staleplavil'noye proizvodstvo; spravochnik),
 t. 2., Moscow, Izd-vo "Metallurgiya", 1964, 1039 p. illus., biblio.,
 tables. Errata slip inserted. 5,850 copies printed.

TOPIC TAGS: steel, open-hearth furnace, quality control, refractory

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L F7595-65
ACCESSION NR AM4046730

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SUB CODE: MM
OTHER: 030

SUBMITTED: 30May64 NR REF SOV: 279

Cord 3/3

СОРКИНА, Н. Н.
SOROKINA, N.N.

Basic features of the tectonic structure of the Middle East. Trudy MNI
no.19:196-225 '57. (MIRA 11:1)
(Near East--Geology, Structural)

KRASNYKH, I.G.; ZHEREBCHENKO, P.G.; MURASHOVA, V.S.; SUVOROV, N.N.;
SOROKINA, N.P.; SHASHKOV, V.S.

Radioprotective action of 5-methoxytryptamine and other alkoxy-
tryptamines. Radiobiologiya 2 no.1:156-160 Ja '62
(MIRA 18:1)

SUVOROV, N.N.; SOROKINA, N.P.; SHEYNKER, Yu.N.

Mechanism of Fischer indole synthesis. Khim. nauka i prom. 2 no.3:
394-395 '57. (MLRA 10:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-tekhnologicheskii
institut im. S. Ordzhonikidze.
(Indole)

79-28-4-54/60

AUTHORS: Suvorov, N. N. , Sorokina, N. P. , Sheynker, Yu. N

TITLE: Research in the Field of the Indole Derivatives (Issledovaniya v oblasti proizvodnykh indola) V. Mechanism of the E. Fischer Reaction (V.K voprosu o mekhanizme reaktsii E. Fishera)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 4, pp. 1090-1097 (USSR)

ABSTRACT: The conversion of aryl hydrazones of carbonyl compounds into indole derivatives (reaction according to E. Fischer) is the most important and most widely used method for the production of the latter. This reaction may be carried out by two ways: The first is by E. Fischer (Ref 2) and used acids as condensing agents (mineral acids, anhydrous zinc chloride, boron trifluoride etc) . On this occasion there is at least 1 mol condensing agent per 1 mol aryl hydrazone - practically a great excess of it is taken. The second method is by A. Ye. Arbuzov (Ref 3) and is based on the catalytic decomposition of the aryl hydrazones. In both cases the formation of the indole derivative takes place under precipitation of 1 mol ammonia (in the case of the method according to E.

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79-28-4-54/60

Research in the Field of the Indole Derivatives. V. Mechanism of the E. Fischer Reaction

Fischer as ammonium salt) from aryl hydrazone. This precipitation takes place due to a previous intramolecular transposition of aryl hydrazone. The mechanism of this interesting reaction was already investigated in technical publications (Refs 4, 5). G. and R. Robinson (Ref 5) divided the conversion of aryl hydrazone into the corresponding indole derivative into three stages:

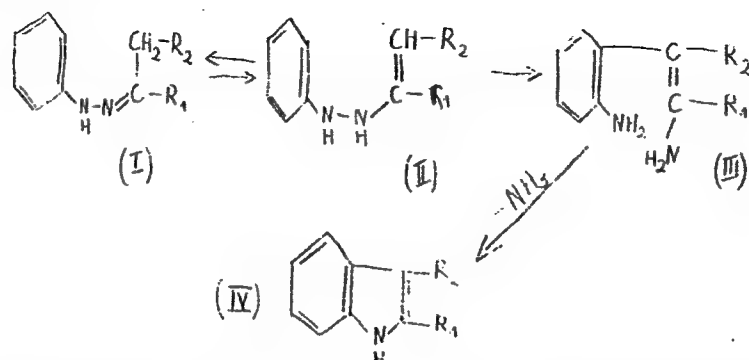
- 1) Tautomeric conversion of aryl hydrazone (I) into the corresponding unsaturated hydrazine (II).
- 2) Ortho-benzidine transposition of the hydrazo compound (II) into the unsaturated diamine (III).
- 3) Formation of the indole ring (IV) by precipitation of one ammonia molecule.

By means of an appropriate process (reaction carried out according to E. Fischer in acetic anhydride as medium and alkaline saponification of the diacetyl derivative of the unsaturated hydrazine) the authors succeeded in dividing this reaction into three stages which agree with the three stages of the mechanism suggested by G. and R. Robinson.

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79-28-4-54/60

Research in the Field of the Indole Derivatives. V. Mechanism of the
E. Fischer Reaction



Both intermediate products could be isolated in acetylated form from phenylhydrazone of the methyl-ethyl ketone used as example. Their structure and the conditions of their conversion into the corresponding indole derivative were investigated. On this occasion a direct proof was obtained for the correctness of the scheme by G. and R. Robinson. It was found that the formation of the unsaturated hydra-

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79-28-4-54/60

Research in the Field of the Indole Derivatives, V. Mechanism of the
E. Fischer Reaction

zine takes place under the presence of acid catalysts; ortho-benzidine transposition does not absolutely need this catalysis but can be made also in the alkaline medium. The formation of the indole ring which can be catalyzed by hydrogen ions takes place very rapidly. It can be achieved also by thermal means.

The carrying out of the mentioned formation reactions is described in detail in an experimental part. There are 2 figures and 26 references, 3 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze
(All-Union Chemical Pharmaceutical Scientific Research
Institute imeni S. Ordzhonikidze)

PRESENTED: March 11, 1957

SUBMITTED: April 13, 1957

Card 4/4

(3)
AUTHORS: Suvorov, N. N., Sorokina, N. P., SOV/79-29-3-49/61
Sheynker, Yu. N.

TITLE: Investigations in the Field of Indole Derivatives (Issledovaniya v oblasti proizvodnykh indola). VI. The Mechanism of E. Fischer's Reaction. Investigation of the Transformations of the Methyl-phenylhydrazone of the Methylene Ketone (VI. Mekhanizm reaktsii E. Fishera. Izucheniye prevrashcheniy metilfenilgidrazona metiletilketona)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 3, pp 979-985 (USSR)

ABSTRACT: The authors showed earlier that the phenylhydrazone of methylene ketone gives in the case of heating with the acetic acid anhydride in the presence of n-toluene sulfo acid the 2-(N,N'-diacetyl- β -phenylhydrazine)-butene-2 in a high yield. This compound is the diacetyl derivative of the enhydrazine, the first intermediate product of Fischer's reaction (Ref 1). The problem of the behavior of the methyl-phenylhydrazone of the methylene ketone (1) under analogous conditions was of theoretical interest. The theoretical assumption by the authors that the last reaction is bound to proceed differently from that with the not substituted phenyl-

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Investigations in the Field of Indole Derivatives.
VI. The Mechanism of E. Fischer's Reaction.
Investigation of the Transformations of the Methyl-
phenylhydrazone of the Methylene Ketone

SOV/79-29-3-49/61

hydrazone was experimentally confirmed. By means of distillation in vacuum, the chromatography on aluminum oxide, and repeated re-crystallization five compounds could be separated from the product obtained in the case of boiling of the methylphenylhydrazone of the methylene ketone with the acetic acid anhydride in the presence of *n*-toluene sulfo acid. One compound turned out to be an *N*-methyl acetanilide (II), the other one a β -acetyl- α -methyl- α -phenylhydrazine (III). The formation of these products is explained by the low stability of the *N*-H- and C-N bonds. The other three compounds were isomeric to one another. They all form 2,4-dinitro-phenyl-hydrazones - a fact which points out the presence of a carbonyl group. The elementary composition, the capability of forming red picrates, as well as their infrared spectra permit the assumption that these compounds are acetyl-1,2,3-trimethyl-indole-isomers and differ from one another only by the position of the acetyl group in the benzene ring. The two figures show the infrared and ultraviolet absorption spectra of the compounds obtained.

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Investigations in the Field of Indole Derivatives.
VI. The Mechanism of E. Fischer's Reaction,
Investigation of the Transformations of the Methyl-
phenylhydrazone of the Methylethyl Ketone

SOV/79-29-3-49/61

There are 2 figures and 6 references, 3 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S. Ordzhonikidze (All-Union Scientific Chemico-
pharmaceutical Research Institute imeni S. Ordzhonikidze)

SUBMITTED: February 6, 1958

Card 3/3

SUVOROV, N.N.; SOROKINA, N.P.

Indole derivatives. Part 7: Mechanism of E. Fischer's reactions. Structure of isomeric Bz-ethyl-1,2,3-trimethylindoles. Zhur.ob.khim. 30 no.6:2055-2061 Je '60.(MIRA 13:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Indole)

ZHEREBCHENKO, P.G.; SUVOROV, N.N.; MURASHOVA, V.S.; PREOBRAZHenskAYA,
M.N.; SOROKINA, N.S.; FEDOROVA, M.V.

Radioprotective activity of some tryptamine derivatives and
their homologues. Med.rad. 6 no.8:27-32 Ag '61. (MIRA 14:8)
(RADIATION PROTECTION) (INDOLE)

SOROKINA, N.P.

2

0451

3/205/62/002/001/003/010
D252/D302

272400
AUTHORS: Krasnykh, I.G., Zherobchenko, P.G., Kurashova, V.S.,
~~Suvorov, K.M.~~, Sorokina, N.P., and Shashkov, V.S.
TITLE: The radioprotective effect of 5-methoxytryptamine and
other alkoxytryptamines
PERIODICAL: Radiobiologiya, v. 2, no. 1, 1962, 156 - 160

TEXT: The radioprotective action of 4-, 5-, 6-, and 7-methoxytryptamine, and 5-ethoxy-, 5-propoxy-, 5-butoxy-, and 5-benzoxtryptamine was investigated. 2,900 white mice irradiated at 700 r and 120 white rats at 800 r were studied. There were 3 series of experiments. In the first, results showed that 5-methoxytryptamine gave over 60 % survival in irradiated mice. Further study in the second series revealed a prophylactic effect over a wide dose range (5 - 150 mg/kg) with an average 68.3 % survival at the optimum 75 mg/kg. Administered by intraperitoneal injection even 1 - 2 hours before irradiation there was a maximum 34 % survival, and orally at the optimum 250 mg/kg; 10 - 15 minutes before irradiation, there was 54 % survival. X

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S/205/62/002/001/008/010
D262/E302

The radioprotective effect of ...

survival, whereas serotonin was ineffective. Subcutaneous injection gave the same protection as intraperitoneal. In the third series of experiments on rats irradiated at 800 r survival was 50 - 63 %. Oral administration also gave protection. The experimental data showed the relationship between the chemical structure of some alkoxy-tryptamines and radioprotection. Structural changes in tryptamine, by introducing the methoxy radical at different positions on the indole ring increased or decreased radioprotection, increase occurring only when the methoxy radical was introduced at the fifth position. 5-methoxytryptamine gave protection comparable to that of serotonin. Its effectiveness may be due to more selective penetration of radiosensitive tissue. There are 4 figures and 11 references: 5 Soviet-bloc and 6 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: P.J.H. Wang, J.G. Aereiake, Radiation Res., 11, 2, 476, 1959; Z.M. Bacq, and others, Experientia, 15, 5, 175, 1959; Z.M. Bacq, P. Alexander, Fundamentals of radiobiology, London, 1955; Z.M. Bacq, Acta radiol. 41, 1, 1954.

SUBMITTED: August 29, 1961
Card 2/2

40477

S/205/62/002/002/010/015

1020/1215

27.41 012 2220
AUTHORS: Krasnykh, I. G., Zhrebchenko, P. G., Murashova, V. S., Suvorov, N. N. and Sorokina, N. P.

TITLE: Increased radiation-protective effect of the combined administration of 5-metoxytryptamine and merkamine

PERIODICAL: Radiobiologiya, v. 2, no. 2, 1962, 298-303

TEXT: This is the continuation of a previous study. White mice weighing 18-22 g were irradiated with 700 (LD 95/30), 800, 900, and 1000 r. White rats weighing 150-200 g received 800 r (LD 90/30). One group of animals received 75 mg/kg 5-metoxytryptamine, a second group — 150 mg/kg merkamine, a third received both drugs in the same dosage, and a fourth — no medication. Survival, body weight, amount of leucocyte in the peripheral blood, early degenerative changes in the bone marrow and spleen cells, and the weight of the spleen, thymus, and liver were considered. The combined administration of both drugs resulted in a summation of the radiation-protective effect. The survival was greater, the radiation sickness was milder, and recovery occurred earlier. Treatment of mice irradiated with 1000 r resulted in a 27.5% survival. Degenerative changes in the bone marrow and spleen cells, as well as a decrease in the weight of spleen and thymus, were less

Card 1/2

Increased radiation-protective effect...

S/205/62/002/002/010/015
1020/1215

marked in animals thus treated. When 5-metoxytryptamine was combined with β -mercaptopyrrolamine good results were obtained, corresponding to those obtained by the combined use of serotonin and merkamin. There are 4 figures and 4 tables.

SUBMITTED: August 29, 1961.

Card 2/2

SHAGALOV, L.B.; SOROKINA, N.P.; SUVOROV, N.N.

Derivatives of indole. Part 21: Synthesis of
4- and 6-chloroindolylbutyric acids. Zhur. ob. khim. 34
no. 5:1592-1595 My '64. (MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni Ordzhonikidze.

SUVOROV, N.N.; SOROKINA, N.P.; TSVETKOVA, G.N.

Derivatives of indole. Part 22: Improved synthesis of
tryptamines. Zhur. ob. khim. 34 no. 5:1595-1598 My '64.
(MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni Ordzhonikidze.

SHCHUKINA, L.A.; SUVOROV, N.N.; NEKLYUDOV, A.D.; SOROKINA, N.P.

Synthesis of melatonin analogs. Izv.AN SSSR. Ser.khik.
no.1:107-111 '66. (MIRA 19:1)

1. Institut khimii prirodnikh soyedineniy AN SSSR. Submitted
August 1, 1963.

I 24727-66 EWP(m)/EWP(v)/EWP(j)/T IIP(c) WW/RM
 Acc No: AP6005403 (A) SOURCE CODE: UR/0323/65/000/005/0039/0046

AUTHOR: Marchenko, L. N. (Engineer); Kotov, M. P. (Professor); Sorokina, N. S. (Candidate of technical sciences); Chernysheva, T. Ye. (Candidate of chemical sciences)

ORG: Kiev Technological Institute of Light Industry (Kiyevskiy tekhnologicheskii institut legkoy promyshlennosti)

TITLE: Investigation of the physical and mechanical properties of cements with polyamide, polyester, and phenolformaldehyde resin bases

SOURCE: IVUZ. Tekhnologiya legkoy promyshlennosti, no. 5, 1965, 39-46

TOPIC TAGS: cement, polyamide resin, phenolformaldehyde resin, polyester, elasticity, adhesive, adhesion

ABSTRACT: New thermoplastic, rapid-setting, and elastic adhesive resins have been obtained with polyamide, polyester, and phenol-formaldehyde resin bases. These cement compositions (KTILOL) can be used for obtaining an adhesive-reinforcing seam for mechanized adhesive joining of parts of footwear and clothing. The effect was studied of the phenolformaldehyde resins on the properties of KTILOL cement. The effects of various polyester resins on the strength and

Card 1/2

L 24727-66

ACC NR: AP6005403

elasticity of adhesive joints was analyzed. Compositions based on polyether resins having a 1:1 molar ratio of anhydride and alcohol with the acid number before the moment of gelatinization have greater adhesive-joint strength and less adhesive-seam thickness. Orig. art. has: 5 figures and 4 tables. [Based on author's conclusions] [NT]

SUB CODE: 11/ SUBM DATE: 18Jan65/ ORIG REF: 010/ OTH REF: 003/

Card

2/2

MOSTOFIN, A.A., inzh.; SOROKINA, N.S., inzh.

TKTI salt meters with degassing and enrichment of the samples.
Teploenergetika 8 no.4:85-89 Ap '61. (MIRA 14:8)

1. TSentral'nyy kotloturbinnyy institut.
(Feed water)

SOROKINA, N. S.

"Characteristics of the Metabolism and Productivity of
Crossbred Pigs." Cand Agr Sci, Moscow Agricultural Acad imeni
K. A. Timiryazev, Moscow, 1953. (RZhBiol, No 2, Sep 54)

Survey of Scientific and Technical Dissertations Defended at USSR
Higher Educational Institutions (10)

So: Sum. No. 481, 5 May 55

SOROKINA, N.S., kand. khimich. nauk, dotsent; BOGDANOV, L.A., inzh.;
ANANYEVA, L.A., inzh.; KHARLASHKIN, V.I., inzh.; ZHILA, T.I.,
inzh.; PIVOVAROVA, T.V., inzh.; KOTOV, M.P., prof.

Some problems in the cyanoethylation, carboxylation, alkylation
and acylation of gelatin. Izv. vys. ucheb. zav.; tekhn. leg.
prom. no.3:70-75 '63. (MIRA 16:7)

1. Kiyevskiy tekhnologicheskoy institut legkoy promyshlennosti.
Rekomendovana kafedroy tekhnologii kozhi.
(Gelatin) (Polymerization)

L 63838-65 EWT(m)/EPF(c)/EWP(v)/EWP(j)/T WW/RM

ACCESSION NR: AP5020514

UR/0323/65/000/004/0040/0045 43

AUTHORS: Kotov, M. P. (Professor); Sorokina, N. S. (Candidate of chemical sciences, docent); Marchenko, L. N. (Engineer); Chernysheva, T. Ye. (Candidate of chemical sciences) 44,55 44,55 44,55 41

TITLE: Changes in physical and mechanical properties of mixed polyamide-polyester resins with various component ratios 6

SOURCE: IVUZ. Tekhnologiya legkoy promyshlennosti, no. 4, 1965, 40-45

TOPIC TAGS: resin, polyamide, adhesion, mechanical stress 44,55

ABSTRACT: This study presents data on the mechanical strength and adhesive properties of the resultant product when various amounts of pentaphthalate (phthalic anhydride : pentaerythritol = 1 : 1) or technical alkyd resin (brand 1350, first group) are introduced into polyamide resin AK 50/50. The mixture was prepared in a mutual solvent at 180C in a stream of nitrogen. The films formed from 20% solution of this composition in ethyl alcohol were carefully dried at a constant relative humidity until the solvent was completely removed. It was found that introduction of 5 to 10% (by weight) of polyester results in lowering the melting temperature and increases the cohesive strength of the film, while the adhesive ability of the polyamide-polyester composition increases with addition of

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L 63838-65

ACCESSION NR: AP5020514

3

40-50% of polyesters. Strength of the seam formed (either by means of film or by melt fusion) is practically the same. The improved mechanical properties and adhesive strength of the polyester-containing resins are explained by the formation of cross- and three-dimensional linkages between polymeric chains. Orig. art. has: 2 tables and 6 figures.

ASSOCIATION: Kiyevskiy tekhnologicheskii institut legkoy promyshlennosti (Kiev Technological Institute of Light Industry) 44,55

SUBMITTED: 24 Nov 64

ENCL: 00

SUB CODE: OC, MT

NO REF SOV: 004

OTHER: 000

Card 2/2

L 08137-67 ENT(m)/EWP(v)/EWP(j) IJP(c) WW/RM

ACC NR: AP6029270

(A)

SOURCE CODE: UR/0323/66/000/003/0038/0042

AUTHOR: Kotov, M. P. (Doctor of Technical Sciences, Professor); Sorokina, N. S. (Candidate of Chemical Sciences, Docent); Kharlashkin, V. I. (Engineer); Kuz'mina, V. I. (Engineer); Petrova, T. A. (Engineer); Bulgakov, P. M. (Engineer)

27

26

ORG: Kiev Technological Institute for Light Industry (Kiyevskiy tekhnologicheskii institut legkoy promyshlennosti)

8

15

TITLE: Technological conditions for preparing and applying thermoplastic adhesive KTILOL-11 in beading parts of shoe uppers

SOURCE: IVUZ. Tekhnologiya legkoy promyshlennosti, no. 3, 1966, 38-42

TOPIC TAGS: THERMOPLASTIC MATERIAL; footgear, adhesive, water repellant lubricant / KTILOL-11 ADHESIVE

ABSTRACT: The new adhesive KTILOL-11 is prepared by mixing and heating to 190-200°C 50% polyamide 54 with 18-30% modified alkyd, 4-8% plasticizer KPT and 27-18% novolac type phenol-formaldehyde resin. The alkyd is previously modified by heating, with removal of water, to an acid number not over 30 and a melting point not below 60°. Such compositions containing no more than 24% alkyd and 6% plasticizer are suitable for making adhesive coated strands which can be coiled without sticking. The adhesive-coated threads of 1.0-1.2 x 10⁻³ m diameter were made by passing cotton thread through the molten adhesive and through a die. Various waterproofing compositions were tried

Card 1/2

L 08137-67

ACC NR: AP6029270

to keep the threads from sticking during storage. A 5% solution of stearic acid in mixed solvent (5 parts by weight mineral oil, 95 kerosene) prevented sticking for two days; coating with mineral oil alone also helped somewhat. Other precautions in making the adhesive-coated strands: the resin composition should not be overheated during preparation; sufficient time for cooling the adhesive on the thread is needed--the take-up spool should be not less than 2 meters from the die; optimum rate is 20-25 rev/min. L. N. Zavel'gel'skii, Senior Engineer of the "Burevestnik" factory took part in the work. Orig. art. has: 2 tables.

SUB CODE: 11, 13/ SUBM DATE: 20Jan66/ ORIG REF: 004

Card 2/2 not

ACC NR: AP7004042 (A/ SOURCE CODE: UR/0323/66/000/005/0019/0023

AUTHOR: Marchenko, L. N. (Engineer); Sorokina, N. S. (Candidate of chemical sciences; Docent); Kotov, M. P. (Doctor of technical sciences; Professor)

ORG: Kiev Technological Institute for the Light Industry (Kiyevskiy tekhnologicheskii institut legkoy promyshlennosti)

TITLE: Properties of copolymerized polyamide and phenolformaldehyde resins

SOURCE: IVUZ. Tekhnologiya legkoy promyshlennosti, no. 5, 1966, 19-23

TOPIC TAGS: resin, polyamide, phenolformaldehyde, polymer, copolymerization, polyamide resin, phenolformaldehyde resin, cement, glue

ABSTRACT: Polyamide resins modified with various amounts of phenolformaldehyde novolak resins were investigated for use in glues for various materials including leather. It was shown that in glues containing 5—10% phenolformaldehyde resin, the property-composition curves pass a maximum which is explained as the chemical interaction of compounds followed by the formation of a branched polymer. Orig. art. has: 5 figures and 2 tables. [AM]

SUB CODE: 11/SUBM DATE: 25Nov65/ORIG REF: 007/OTH REF: 002/

Card 1/1

SCRCKINA, N. V.

"Changes in the Nervous System in Crimean and Omsk Hemorrhagic Fevers."
Sub 26 Dec 51, Acad Med Sci USSR.

Dissertations presented for science and engineering degrees in Moscow
during 1951.

SO: Sum. No. 480, 9 May 55.

CHLENOV, L.G.; IOSELEVICH, F.I.; ROLLE, S.D.; SOROKINA, N.V.; FRENKEL', O.M.

On changes of the analytical function in cases of hypertonic illness.
Zh. Nevropat. Psikhiat., '52, 52, no.9, 28-35. (MLRA 5:9)
(PsA 27, no.8:6062 '53)

SOROKINA, N. V.

7894. Korsak, YE. K. I. SOROKINA, N. V. Uchebnoye posobiye dlya krukhkov Gso. sost: ye. K. Korsak I N. V. sorokina. Pod Red. N. I. Krakovskogo. Vil'nyus, "Sov. Litva", 1954. 160 S. S. Ill. 21 sm. (tsentr. Kom. o-va krasnogo kresta lssr). 5000 EKZ. Bespl.- na pereplete post. neukazany.--na perepletezagl; Gotov K sanitarnoy oborone sssr.-- NA litov. yaz.--(54-52758)

614

SO: Knizhuaya Letopis', Vol. 7, 1955

SOROKINA, N.Ye.

Finishing furniture with color lacquer. Der.prom.5 no.9:20 S '56.
(MLRA 9:10)

1.Saratovskaya mebel'naya fabrika.
(Saratov--Furniture industry) (Lacquer and lacquering)

SOROKINA, N.Ye., inzhener.

Preparation of a universal indicator to determine hydrogen-ion concentration in resins. Der.prom. 6 no.1:8 Ja '57. (MLRA 10:2)

1. Saratovskaya mebel'naya fabrika.
(Indicators and test papers) (Hydrogen-ion concentration)
(Gums and resins)

SOROKINA, N.Ye.; MATYUSHINA, N.I.

Particle boards with veneered frames. Der.prom. 10 no.10:
28 0 '61. (MIRA 14:9)

1. Saratovskiy dorevoobrabatyvayushchiy kombinat.
(Hardboard) (Veneers and veneering)

KHVOSTOVA, V.V., DELONE, N.L., SOROKINA, O.N., TRUKOV, V.L., TSELISHCHEV, S.P.
CHAYKINA, K.V.

Development of soft wheat seedlings obtained from seeds irradiated
with thermal neutrons [with summary in English]. Biofizika 3
no.4:459-465 '56 (MIRA 11:8)

1. Institut biologicheskoy fiziki AN SSSR, Moskva i Laboratoriya
biofiziki Moskovskogo ordena Lenina sel'skokhozyaystvennoy akademii
im. K.A. Timiryazeva, Moskva.
(PLANTS, EFFECT OF RADIATION ON)
(WHEAT)

...Dulivale (Lentis - Grains).

Ref Jour : Ref Zhur - Biol., No 3, 1958, 1960

Author : Serokina, G.H.

Inst : Timiryazevskaya Agricultural Academy

Title : Protogine /Protoginiya/ in wheat.

Orig Pub : Izv. Timiryazevsk. s.-kh. akad., 1957, No 2, 73-76

Abstract : In experiments conducted in the TSKHA on the study of the phenomenon of protogine in wheat five phases of the development of the stigma /ryl'tse/ have been exposed. Experiments were set up to determine whether wheat grains which had been pollinated with stigmas of different age by using the pollen of that same variety or of another, variety /i.e. variety of wheat/ (Lyutetsens 329 and Eritrospermum 2411) took hold; other experiments aimed to clarify the sprouting of pollen tubes on stigmas of different age;

Card 1/2

Card 2/2

USSR/Cultivated Plants - Grains

M

Abs Jour : Ref Zhur Biol., No 18, 1958, 82280

Author : Sorokina, O.N., Laptev, Ya.P.

Inst : "

Title : The Amount of Pollen in the Wheat Flowers in Wind
Pollination

Orig Pub : Vestn. Khark. na kl, 1957, No 4, 34-40

Abstract : Experiments in the investigation of the amount pollen grains taking part in the pollination of flowers under the conditions of free wind pollination of spring and winter wheat were conducted for 4 years at the P.I. Lisitsyn Selection Station (Moscow) and at Kharkov Selection Station. The amount of pollen grains taking a direct part in the pollination of the flowers was very negligible although the saturation of the surrounding air with pollen was fairly high and the capturing surface of the stigma was fairly large. The percentage of the seed

Card 1/2

- 20 -

USSR/Cultivated Plants - Grains.

M

Abs Jour : Ref Zhur Biol., No 18, 1958, 82280

setting proved to be high, and the grains were developed normally and had a good germinating ability. The fact of the insignificant amount of the pollen taking part in the pollination is explained, apparently, by the biological peculiarities of the wheat flower: the castrated flower opens up under the action of the swelling lodicules and closes when their turgor decreases. -- Ye.I. Saks

Card 2/2

SOROKINA, O.N.; ANIKEYEVA, I.D.

Cytological study of embryos in neutron-irradiated wheat. TSitologiya
3 no.3:300-304 My-Je '61. (MIRA 14:6)

1. Laboratoriya radiatsionnoy genetiki Instituta biologicheskoy
fiziki AN SSSR, Moskva.
(SEEDS) (PLANTS, EFFECT OF NEUTRONS ON)

SOROKINA, O.N.

Aegilops-wheat allopolyploids. Trudy MOIP. Otd.biol 5:142-147
'62. (MIRA 16:5)

1. Laboratoriya radiatsionnoy genetiki Instituta biofiziki AN
SSSR, Moskva.
(WHEAT BREEDING) (POLYPLOIDY)

SOROKINA, O. N.

Cultivation of barley in the eastern Pamirs. Trudy Bot. inst.
AN Tadzh. SSR. 18:314-333 '62. (MIRA 16:1)

(Pamirs—Barley)

ACCESSION NR: AP4027981

S/0205/64/004/002/0279/0283

AUTHOR: Sorokina, O. N.; Anikayeva, I. D.; Iofa, E. I.

TITLE: Protective action of metabolites in radioresistant plants

SOURCE: Radiobiologiya, v. 4, no. 2, 1964, 279-283

TOPIC TAGS: metabolite, radioresistant plant, radiosensitive plant, radioresistant plant extract, barley seed, ionizing radiation, reduced radiosensitivity, Cruciferae

ABSTRACT: The present study investigates the possibility of introducing metabolites of radioresistant plants into radiosensitive plants to reduce the effects of ionizing radiation. The first of three experiments investigates the effects of radioresistant plant extracts acting on barley seeds for 19 hrs before irradiation (4000 r) and for 19 hrs after irradiation, the second investigates the effects of radioresistant plant extracts acting on barley seeds for 24 hrs before irradiation (500 r), and the third investigates the effect of radioresistant plant extracts acting on barley seeds with torn coleorhizas for 1 hr before irradiation. Survivability, growth, and chromosome

Card 1/2

ACCESSION NR: AP4027981

aberrations served as indices. Findings show that a number of radio-resistant plant extracts reduce the radiosensitivity of barley seeds. Various plants of the Cruciferae (mustard family) whose extracts contain mustard oil, rhodamide, thiocarbamide, and glucosides containing sulfur display high radioprotective action. Vitamins and growth promoting substances probably also increase radioresistance. Radio-protection is higher with extracts acting on seeds for a more prolonged period after irradiation. Orig. art. has: 5 tables.

ASSOCIATION: Institut biologicheskoy fiziki AN SSSR, Moscow (Institute of Biological Physics AN SSSR)

SUBMITTED: 18Oct62

ENCL: 00

SUB CODE: LS

NR REF SOV: 003

OTHER: 003

Card 2/2

Sorokina, O. P.

✓8069 Gas Carburizing Under Pressure. (Digest of "Gas Carburizing Under Pressure", by O. P. Sorokina and D. I. Bron; *Metallodesenie i Obrabotka Metallov*, 1955, no. 1, p. 47-50.) *Metal Progress*, v. 69, Apr. 1956, p. 170, 172.

Two carburizing processes were studied, one that takes place at the interface between the metal and the carburizing medium, and another that occurs in the steel itself. Experiments show that higher pressures accelerate the process of saturation of the surface layer of the steel with carbon. Graph.

(2)

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